

City of Martinsville Public Utilities Department

Electric Division

Water Resources Division

Utility Billing Division

Administration

- Director, Dennis Bowles
- Assistant Director, (Vacant)
- Admin. Office Associate, Molly Shelton

Office Responsibilities

1. Customer calls and walk ins
2. Assigning work to crews
3. Respond to customer outages and service problems
4. Power contract negotiations and review
5. Regulatory reporting and compliance



City of Martinsville Utilities

Electric Division

Electric Division History

- Established in 1905 to supply power to town
- Town Council authorized purchase of the Hairston Mill site on Smith River and constructed a rock dam and hydroelectric plant
- 1928 an interconnection with Appalachian Power Company completed to serve the growing industrial load.
- 1928 to 1998 APCo was the sole wholesale power provider
- 1998 -2005 Cinergy Contract

American Municipal Power Involvement

- 2006 Wholesale block power needs secured - varying terms and quantities
- 2007 Multiple Generation projects planned by AMP; participation offered to members through a subscription process
- 2008 City subscribed for future purchase power needs in:
 1. Prairie State Energy Campus
 2. AMP Hydroelectric development on Ohio River
 3. American Municipal Power Generating Station (AMPGS)
 - In November 2009 AMPGS participants ceased plans to build plant due to 37 % increase in construction costs.
- 56 MW EDI Landfill Gas Generation subscription offering open until April 30, 2011
- 2011, AMP to purchase new 704 MW NGCC in Fremont Ohio from First Energy. Subscriptions open to members March 14, 2011

Electric Division

- Serving approximately 7900 customers
- 100 + miles of distribution lines
- 5 substations
- 1 delivery point
- 1 Hydroelectric dam
- 17 fulltime employees
- 40 Megawatt system load
- 195,000 Megawatt hours purchased annually

Electric Division Structure

- Line Construction and Maintenance Crew
- Substation/Metering Crew
- Hydroelectric Plant and Dam

Line Construction and Maintenance Crew

- New construction including line upgrades and extensions
- Commercial, Industrial and Residential service installations and upgrades
- Line maintenance and repair
- Street Lighting
- Tree Trimming
- Miscellaneous







Substation/Metering Crew

- Substation Upgrade and Maintenance
 - Installation and Maintenance of:
 - Breakers, Voltage Regulators, Transformers
- Supervisory Control and Data Acquisition (SCADA) System
- Meter installation, repair and testing
- Miscellaneous electrical upgrades and repair to City owned buildings
- Energy Audits
- Hydroelectric Plant and Dam Operation and Maintenance.





SWITCHES NOT IN NORMAL POSITION

SW	POSITION	DATE	FOR
5-96-28 (11)	CHYES	04	D.B.



Hydroelectric Plant and Dam

- Hydroelectric dam and original power house began operation in June of 1906
- In 1932 the existing power house began operation and remains in operation today accounting for approximate 2% of the City's power needs.
- Dam is maintained under State guidelines for flood control and safety
- 1000 KW and 300 KW Generators operate as a run of river generation.
- Grant Funding of \$506,000 secured to rehabilitate turbines, increasing power output by approximately 6%
- Turbine rehabilitation to be completed by March 2012









Moving Forward 2011 and Beyond

- 1.06 MW Landfill Gas Generation Project under development by the City
- Pursue Base Load and Intermediate capacity needs
- New AMP project offerings
- New projects outside AMP

Water Resources Division

- In 1893 The first Water Plant, a steam driven facility, was established in it's current location, 302 Clearview Dr. The water source was the Jones Creek Reservoir located in front of current plant.
- 1928 an electric plant was established on the current grounds. Little Beaver Creek was added a second Source.

Water Resources cont.

- 1948 The current plant was built on the same site.
- 1954 the Beaver Creek Reservoir was built.
- 1965 The Sewage Plant and sewer lines were put into service. The plant was a Primary Treatment facility.
- 1985 The Water Resources Department was created.

Water Resources Today

- We have become a division of the Utilities Department.
- Water Resources Superintendant.
- Serving 7500 Customers
- Treating all Sewage for City and County
- The basic subdivisions:
 - Water Treatment
 - Wastewater Treatment
 - Distribution and Collection

Water Treatment

- Beaver Creek Reservoir is sole source except drought or emergency.
- Lake Warden oversee all activity
- Reservoir water flow is 2 MGD by gravity, supplemented by up to 6 MG by pump(s).
- We are experiencing pressures to extend Reservoir for recreation.

Water Plant



Water Filtration Plant

- Doug Wood Oversees the operations and compliance of the plant.
- We are regulated by the VDH Office of Water Programs in Danville.
- Staffing: 6 operators, 2 maintenance and 1 Lab, operates 12 per day.
- Current usage: 2 MGD
- Disinfection by-products are our largest concern.

Water Plant from Back



Sewage Treatment

- Carman McDowell oversees the operations and compliance of the Waste Water Treatment plant.
- We are regulated by the DEQ Blue Ridge Regional Office.
- Staffing: 8 Operators, 3 maintenance, 2 Sludge Handling and 1 lab. Operates 24/7
- Approximately 4 MGD during dry weather.
- Inflow & Infiltration, Nutrient Removal and Cost are concerns.

Distribution and Collection

- David Johnston oversees the maintenance and construction of the water and sewer lines.
- 120 Miles of Water lines and 140 miles Sewer lines.
- Staffing 5 Equipment operators and 7 workers.
- Sewer blockages and ruptured water and sewer lines comprise the majority of trouble calls.
- They work on I & I as time permits.

Distribution(Water)

- There are three pressure zones.
- We have five tanks that overflow at 1110 feet above sea level.
 - Bethel Lane(1 concrete 0.5 MG, 1 Steel ground level tank 1.3 MG).
 - Tank Street(2 Steel Ground Level Tanks 1 MG per tank).
 - NY Tank(near Ryan's) elevated 1 MG.

New York Tank



Distribution cont.

- 1240 Feet above sea level 2 Tanks.
 - Grandview 0.4 MG Ground level steel.
 - Summitview 0.05 MG Ground level steel.
 - Level controlled by SCADA system and pumps at Bethel Lane.
- 940 Feet above sea level 1 Tank.
 - Industrial Park 0.40 MG elevated steel.

Utility Billing Division

- 8 full time employees (4 administrative professionals and 4 meter readers)
- Read meters and process billing for 7500 water customers and 7900 electric customers
- Process customer contracts for new service
- Customer disconnects



